

## ABSTRACT OF THE INVENTION

The present invention relates to mammalian anthrax toxin receptor polypeptides and polynucleotides encoding same as well as related polypeptides and polynucleotides, vectors containing the polynucleotides and polypeptides, host cells containing related polynucleotide molecules, and cells displaying no anthrax toxin receptor on an exterior surface of the cells-minus cell lines and animals. The present invention also relates to methods for identifying molecules that bind the anthrax toxin receptor and molecules that reduce the toxicity of anthrax toxin. Finally, the present invention provides methods for treating human and non-human animals suffering from anthrax.